

Attorney's Docket No. 1033963-000025

AF20REC'D PCT/PTO 06 JUN 2006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

## In re Patent Application of

# Mark Lawrence Williams

**Application No.:**

Filed: June 6, 2006

For: NETWORKS

**Group Art Unit:**

**Examiner:**

**Confirmation No.:**

## FIRST INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, the accompanying information is being submitted in accordance with 37 C.F.R. §§ 1.97 and 1.98.

To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: June 6, 2006

By:

Patrick C. Keane  
Registration No. 32,858

P.O. Box 1404  
Alexandria, VA 22313-1404  
703.836.6620

Substitute for form 1449/PTO & 1449B/PTO

Complete if Known

**FIRST  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(use as many sheets as necessary)

Application	10/581791
Filing Date	June 6, 2006
First Named Inventor	Mark Lawrence WILLIAMS
Examiner Name	
Attorney Docket No.	1033963-000025

Sheet 1 of 1

**U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	STATUS						
					Translation	Partial Translation	Eng. Lang. Summary	Search Report	IPER	Abstract	Cited in Spec

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	* LIDS Technical report #2601, "Using Sample-based Representations Under Communications Constraints", Ihler et al., Revised December 2004 accessed from internet at <a href="http://ssg.mit.edu/~ihler/papers/TR2601.pdf">http://ssg.mit.edu/~ihler/papers/TR2601.pdf</a> pages 1-17
	* Coates M.: "Distributed particle filters for sensor networks" THIRD INTERNATIONAL SYMPOSIUM ON INFORMATION PROCESSING IN SENSOR NETWORKS ACM NEW YORK, NY, USA, 26 April 2004 (2004-04-06), - 27 April 2004 (2004-04-27), pages 99-107, XP002335206 ISBN: 1-58113-846-6
	* VAN DER MERWE R ET AL: "Gaussian mixture sigma-point particle filters for sequential probabilistic inference in dynamic state-space models" 2003 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, PRECEEDINGS. (ICASSP). Hong Kong, IEEE, US, vol. 1 of 6, 6 April 2003 (2003-04-06), - 10 April 2003 (2003-04-10) pages VI701-VI704, XP10640848
	* M ROSENCRANTZ, G. GORDON, S. THRUN: "Decentralized Sensor Fusion with Distributed Particle Filters" PROC. CONF. UNCERTAINTY IN ARTIFICIAL INTELLIGENCE, 7 August 2003 (2003-08-07) XP002335207 Acapulco, Mexico
	* SIDENBLADH H: "Multi-target particle filtering for the probability hypothesis density" INFORMATION FUSION, 2003. PROCEEDING OF THE SIXTH INTERNATIONAL CONFERENCE PISCATAWAY, NJ, USA, IEEE, vol. 2, 8 July 2003 (2003-07-08), - 11 July 2003 (2003-07-11) pages 800-806, XP010675628 * Chapter 4*
	* TOBIAS M ET AL: "A probability hypothesis 1-9 density-based multitarget tracker using multiple bistatic range and velocity measurements" SYSTEM THEORY, 2004. Proceedings of the thirty-sixth southeastern symposium on Atlanta, GA, USA March 14-16, 2004, Piscataway, NJ, USA, IEEE, 14 March 2004 (2004 03-14), pages 205-209, XP010703817 ISBN: 0-7803-8281-1
	* MARARENKO A et al: "Decentralized data fusion and control in active sensor networks" SEVENTH INTERNATIONAL CONFERENCE ON INFORMATION FUSION INT. SOC. OF INFORMATION FUSION MOUNTAIN VIEW, CA, USA, vol. 1, 2004, pages 479-486 Vol. 1, XP002335208 ISBN: 91-7056-115-X * Chapter 3*
	* KOTECHA J H et al. "Gaussian sum particle filtering" IEEE Transactions on Signal Processing IEEE USA, vol. 51, no. 10, October 2003 (2003-10), pages 2602-2612, XP002335209 ISSN: 1053-587X *abstract*
	* ARULAMPALAM M S et al: "A tutorial on particle filters for online nonlinear/non-Gaussian Bayesian tracking" IEEE Transactions on signal processing IEEE USA, vol. 50, no. 2, February 2002 (2002-02), pages 174-188, XP002335210 ISSN: 1053-587X *the whole document*

\* Copy Attached

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.